

In the Claims:

1-17. (Canceled)

18. (Currently Amended) ~~A method according to Claim 17 wherein~~

A method of fabricating microstructures comprising:

imaging a microstructure master blank that comprises a radiation sensitive layer sandwiched between a pair of outer layers, on an imaging platform, to define the microstructures in the radiation sensitive layer, the pair of outer layers comprise comprising a first outer layer adjacent the imaging platform and a second outer layer remote from the imaging platform; and wherein removing comprises

removing the second outer layer from the radiation sensitive layer; the method further comprising:

developing the microstructures that were defined in the radiation sensitive layer; and

creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by contacting the microstructures to a stamper blank.

19. (Original) A method according to Claim 18 wherein creating comprises:

creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by pressing the microstructures against a stamper blank.

20. (Original) A method according to Claim 18 wherein creating comprises:

creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by rolling the microstructures against a stamper blank.

21. (Original) A method according to Claim 18 wherein contacting the microstructures to a stamper blank is performed while the radiation sensitive layer and the first outer layer remain on the imaging platform.

22. (Currently Amended) ~~A method according to Claim 17 wherein~~
A method of fabricating microstructures comprising:
imaging a microstructure master blank that comprises a radiation sensitive
layer sandwiched between a pair of outer layers, on an imaging platform, to define the
microstructures in the radiation sensitive layer, the pair of outer layers comprise
comprising a first outer layer adjacent the imaging platform and a second outer layer
remote from the imaging platform;~~the removing further comprising:~~
separating the first outer layer from the imaging platform; [[and]]
separating the first or second outer layer from the radiation sensitive layer;
~~wherein the method further comprises:~~
developing the microstructures that were defined in the radiation sensitive layer; and
creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by contacting the microstructures to a stamper blank.

23. (Original) A method according to Claim 22 wherein creating comprises:
creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by pressing the microstructures against a stamper blank.

24. (Original) A method according to Claim 22 wherein creating comprises:
creating a second-generation stamper from the microstructures that were developed in the radiation sensitive layer by rolling microstructures against a stamper blank.

25. (Currently Amended) ~~A method according to Claim 17 wherein the microstructure master blank is a first microstructure master blank, and wherein removing is followed by:~~

A method of fabricating microstructures comprising:

imaging a first microstructure master blank that comprises a radiation sensitive layer sandwiched between a pair of outer layers, on an imaging platform, to define the microstructures in the radiation sensitive layer,

removing at least one of the outer layers;

creating a second generation stamper by developing the microstructures in the first microstructure master blank and contacting the microstructures to a stamper blank; and

imaging a second microstructure master blank that comprises a radiation sensitive layer sandwiched between a pair of outer layers, on the imaging platform, to define second microstructures in the radiation sensitive layer;

wherein imaging a second microstructure master blank and creating a second-generation stamper at least partially overlap in time.

26. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein imaging is preceded by:

placing the radiation sensitive layer sandwiched between a pair of outer layers on the imaging platform.

27.-29. (Canceled)

30. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein the radiation sensitive layer is at least about one square foot in area.

31. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein imaging is performed continuously on the radiation sensitive layer for at least about 1 hour.

32. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein imaging is performed continuously on the radiation sensitive layer for at least about 1 hour to fabricate at least about one million microstructures.

33. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein the microstructures comprise optical and/or mechanical microstructures.

34. (Currently Amended) A method according to Claim ~~17~~ further comprising: 18 wherein developing comprises developing the microstructures that were defined in the radiation sensitive layer to provide a microstructure master.

35. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein the pair of outer layers are cylindrical, ellipsoidal or polygonal in shape.

36. (Currently Amended) ~~A method according to Claim 34 further comprising:~~

A method of fabricating microstructures comprising:

imaging a first microstructure master blank that comprises a radiation sensitive layer sandwiched between a pair of outer layers, on an imaging platform, to define the microstructures in the radiation sensitive layer,

removing at least one of the outer layers;

developing the microstructures that were defined in the radiation sensitive layer to provide a microstructure master;

forming a plurality of second generation stampers directly from the master;

and

forming a plurality of third generation microstructure end products directly from a stamper.

37. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein ~~the pair of outer layers comprise a first outer layer adjacent the imaging platform and a second outer layer remote from the imaging platform;~~ the imaging comprising:

comprises impinging a radiation beam through the second outer layer into the radiation sensitive layer to define microstructures in the radiation sensitive layer.

38. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein the radiation sensitive layer is a negative photoresist layer such that portions of the negative photoresist layer that are exposed to the radiation beam remain after development.

39. (Currently Amended) A method according to Claim ~~[[17]]~~ 18 wherein the pair of outer layers are flexible.

40. (Canceled)

41. (Currently Amended) ~~A method according to Claim 40 further comprising:~~

A method of fabricating a microstructure master comprising:

placing on a cylindrical platform, a microstructure master blank that comprises a first outer layer, a negative photoresist layer on the first outer layer and a second outer layer on the negative photoresist layer, such that the first outer layer is adjacent the cylindrical platform and the second outer layer is remote from the cylindrical platform;

impinging a laser beam through the second outer layer into the negative photoresist layer while simultaneously rotating the cylindrical platform about an axis thereof and while simultaneously axially rastering the laser beam across at least a portion of the negative photoresist layer to image the microstructures in the negative photoresist layer;

separating the first outer layer from the cylindrical platform;

separating the first outer layer from the negative photoresist layer;

developing the microstructures that were imaged in the negative photoresist layer; and

creating a second-generation stamper from the microstructures that were developed in the negative photoresist layer by contacting the microstructures to a stamper blank.

42. (Original) A method according to Claim 41 wherein creating comprises:

creating a second-generation stamper from the microstructures that were developed in the negative photoresist layer by pressing the microstructures against a stamper blank.

43. (Original) A method according to Claim 41 wherein creating comprises:

creating a second-generation stamper from the microstructures that were developed in the negative photoresist layer by rolling the microstructures against a stamper blank.

44. (Currently Amended) ~~A method according to Claim 40 wherein the microstructure master blank is a first microstructure master blank and~~

A method of fabricating a microstructure master comprising:

placing on a cylindrical platform, a first microstructure master blank that comprises a first outer layer, a negative photoresist layer on the first outer layer and a second outer layer on the negative photoresist layer, such that the first outer layer is adjacent the cylindrical platform and the second outer layer is remote from the cylindrical platform;

impinging a laser beam through the second outer layer into the negative photoresist layer while simultaneously rotating the cylindrical platform about an axis thereof and while simultaneously axially rastering the laser beam across at least a portion of the negative photoresist layer to image the microstructures in the negative photoresist layer;

separating the first outer layer from the cylindrical platform;

separating the first outer layer from the negative photoresist layer; and

developing the microstructures that were imaged in the negative photoresist layer:

wherein separating the first outer layer from the cylindrical platform is followed by:

creating a second generation stamper from the microstructures that were developed in the negative photoresist layer of the first microstructure master blank by contacting the microstructures to a stamper blank;

placing on the cylindrical platform, a second microstructure master blank that comprises a first outer layer, a negative photoresist layer on the first outer layer and a second outer layer on the negative photoresist layer, such that the first outer layer is adjacent the cylindrical platform and the second outer layer is remote from the cylindrical platform;

impinging the laser beam through the second outer layer of the second microstructure master blank into the negative photoresist layer of the second microstructure master blank while simultaneously rotating the cylindrical platform about an axis thereof and while simultaneously axially rastering the laser beam across at least a portion of the negative photoresist layer of the second microstructure master blank to image the microstructures in the negative photoresist layer of the second microstructure master blank;

wherein creating a second generation stamper and impinging the laser beam through the second outer layer of the second microstructure master blank at least partially overlap in time.

45.-46. (Canceled)

47. (Currently Amended) A method according to Claim ~~[[40]]~~ 41 wherein the microstructure master blank is at least about one square foot in area.

48. (Original) A method according to Claim 47 wherein impinging is performed continuously on the microstructure master blank for at least about 1 hour.

49. (Original) A method according to Claim 48 wherein impinging is performed continuously on the microstructure master blank for at least about 1 hour to fabricate at least about one million microstructures.

50. (Currently Amended) A method according to Claim ~~[[40]]~~ 41 wherein the microstructures comprise optical and/or mechanical microstructures.

51. (Currently Amended) ~~A method according to Claim 42 further comprising:~~

A method of fabricating a microstructure master comprising:

placing on a cylindrical platform, a microstructure master blank that comprises a first outer layer, a negative photoresist layer on the first outer layer and a second outer layer on the negative photoresist layer, such that the first outer layer is adjacent the cylindrical platform and the second outer layer is remote from the cylindrical platform;

impinging a laser beam through the second outer layer into the negative photoresist layer while simultaneously rotating the cylindrical platform about an axis thereof and while simultaneously axially rastering the laser beam across at least a portion of the negative photoresist layer to image the microstructures in the negative photoresist layer;

separating the first outer layer from the cylindrical platform;

separating the first outer layer from the negative photoresist layer;

developing the microstructures that were imaged in the negative photoresist layer;

creating a second-generation stamper from the microstructures that were developed in the negative photoresist layer by contacting the microstructures to a stamper blank; and

forming a plurality of third generation microstructure end products directly from a stamper.

52. (Currently Amended) A method according to Claim ~~[[40]]~~ 41 wherein the first and second outer layers are flexible.

53. (New) A method according to Claim 22 wherein the microstructures comprise optical and/or mechanical microstructures.

54. (New) A method according to Claim 25 wherein the microstructures comprise optical and/or mechanical microstructures.

55. (New) A method according to Claim 36 wherein the microstructures comprise optical and/or mechanical microstructures.

56. (New) A method according to Claim 44 wherein the microstructures comprise optical and/or mechanical microstructures.

57. (New) A method according to Claim 51 wherein the microstructures comprise optical and/or mechanical microstructures.